What is claimed is:

1. A musical instrument amplifier for use in producing an overdriven sound over a wide range of different volume levels, comprising:

a pre-amplifier section having an input and at least one amplifier stage coupled to said input, whereby said amplifier stage amplifies audio signals received through said input,

a power amplifier section having an output and at least one output stage coupled to said pre-amplifier section to receive the amplified audio signals, whereby a loudspeaker connected to said output can be operated,

a power attenuation circuit interposed between said power amplifier output and loudspeaker for controlling the volume output level from the speaker while maintaining substantially constant distortion from the amplifier, constant proportional quality of high frequencies in applied sound signals, and the input impedance of the device, with the speaker coupled therewith, within a constant impedance range near a predetermined impedance, said circuit comprising:

first impedance means coupled in series with the speaker,

second impedance including variable frequency-sensitive impedance means adapted to be manually settable to control volume output level from the speaker and having

a variable frequency-sensitive impedance means output node,

means coupling said second impedance means in parallel with the series connection of the first impedance means and the speaker impedance,

and means coupling said variable frequency-sensitive impedance output node to a junction point between the series connection of the first impedance means and the speaker impedance.

2. A musical instrument amplifier as set forth in claim 1

wherein said first impedance means includes

a fixed resistor

coupled in series with the speaker impedance.

3. A musical instrument amplifier as set forth in claim 2

wherein said first impedance means further includes

a heat sink,

said fixed resistor coupled in series with the speaker impedance being mounted onto said heat sink.

4. A musical instrument amplifier as set forth in claim 1

wherein said variable frequency-sensitive second impedance means includes

a continuously tapped coil,

a volume selection control knob and

a variable controller,

said volume selection knob being directly connected to said variable controller,

said controller having infinite multiple positions corresponding to an infinite amount of tap positions along said continuously tapped coil to define said first and second parts of said variable frequency-sensitive second impedance means.

5. A musical instrument amplifier as set forth in claim 4

wherein said controller has

an infinite plurality of contacts,

respectively coupled to the infinite multiple tap positions along said continuously tapped coil, and

a contact defining said variable frequency-sensitive impedance output node,

said contact being coupled to said junction point between the series connection of the first impedance means and the speaker impedance,

whereby said first part of said variable frequency-sensitive second impedance means is being coupled in parallel with said first impedance means,

and said second part of said variable frequency-sensitive second impedance means is being coupled in parallel with the speaker.

6. A musical instrument amplifier as set forth in claim 1

wherein said first impedance means, speaker impedance and second impedance means form a ladder network

with said second impedance means having complementary variable frequency-sensitive impedance sections.

7. A musical instrument amplifier as set forth in claim 1

wherein said second variable frequency-sensitive impedance means including a first part and a second part adapted to be manually settable in a complementary manner to control volume output level from the speaker,

further including control means to determine the relationship of said first and second parts,

said control means being connected to a junction point between the series connection of said first impedance means and the speaker impedance,

whereby said first part of said variable frequency-sensitive second impedance means is being coupled in parallel with said first impedance means,

and said second part of said variable frequency-sensitive second impedance means is being coupled in parallel with the speaker.

8. A volume control device for an amplifier and speaker system

adapted for controlling the volume output level from the speaker while maintaining substantially constant proportional quality of high frequencies in applied sound signals and the input impedance of the device, with the speaker coupled therewith, within a constant impedance range near a predetermined impedance, said device comprising:

input terminal means for receiving an output signal from the amplifier,

first impedance means,

means coupling the first impedance means in series with the speaker impedance across the input terminal means,

second impedance including variable frequency-sensitive impedance means adapted to be manually settable to control volume output level from the speaker and having a variable frequency-sensitive impedance means output node,

means coupling said second impedance means in parallel with the series connection of the first impedance means and the speaker impedance,

and means coupling said variable frequency-sensitive

impedance output node to a junction point between the series connection of the first impedance means and the speaker impedance.

9. A volume control device as set forth in claim 8

wherein said first impedance means includes

a fixed resistor

coupled in series with the speaker impedance.

10. A volume control device as set forth in claim 9

wherein said first impedance means further includes

a heat sink,

said fixed resistor coupled in series with the speaker impedance being mounted onto said heat sink.

11. A volume control device as set forth in claim 8

wherein said variable frequency-sensitive impedance means includes

a continuously tapped coil,

a variable controller and

a volume selection control knob to manually set the volume,

said control knob being directly connected to said variable controller,

said controller having infinite multiple positions corresponding to an infinite amount of tap positions along the continuously tapped coil,

thereby dividing in a complementary manner said continuously tapped coil into a first part and a second part.

12. A volume control device as set forth in claim 11

wherein said variable controller has

an infinite plurality of contacts,

respectively coupled to the infinite multiple tap positions along said continuously tapped coil, and

a contact defining the variable frequency-sensitive impedance means output node,

said contact being coupled to a junction point between the series connection of the first impedance means and the speaker impedance

whereby said first part of said continuously tapped coil is being coupled in parallel with said first impedance means, and said second part of said continuously tapped coil is being coupled in parallel with the loudspeaker.

13. A volume control device as set forth in claim 8

wherein said first impedance means, speaker impedance and second impedance means form a ladder network with said second impedance means having complementary variable frequency-sensitive impedance sections.

14. A loudspeaker cabinet

for use over a wide range of different volume levels with constant sound quality, comprising:

a loudspeaker enclosure,

at least one loudspeaker,

a power attenuation circuit adapted for controlling the volume output level from the speaker while maintaining substantially constant proportional quality of high frequencies in applied sound signals and the input impedance of the circuit, with the speaker coupled therewith, within a constant impedance range near a predetermined impedance, said circuit comprising:

input terminal means for receiving an output signal from the amplifier,

first impedance means,

means coupling the first impedance means in series with the speaker impedance across the input terminal means,

second impedance including variable frequency-sensitive impedance means adapted to be manually settable to control volume output level from the speaker and having a variable frequency-sensitive impedance means output node,

means coupling said second impedance means in

parallel with the series connection of the first impedance means and the speaker impedance,

and means coupling said variable frequency-sensitive impedance output node to a junction point between the series connection of the first impedance means and the speaker impedance.

15. A loudspeaker cabinet as set forth in claim 14

wherein said first impedance means includes

a fixed resistor

coupled in series with the speaker impedance.

16.A loudspeaker cabinet as set forth in claim 15

wherein said first impedance means further includes a

heat sink,

said fixed resistor coupled in series with the speaker impedance being mounted onto said heat sink.

17. A loudspeaker cabinet as set forth in claim 14

wherein said variable frequency-sensitive impedance means includes

a continuously tapped coil,

a variable controller and

a volume selection control knob to manually set the volume,

said control knob being directly connected to said variable controller,

said controller having infinite multiple positions corresponding to an infinite amount of tap positions along the continuously tapped coil,

thereby dividing in a complementary manner said continuously tapped coil into a first part and a second part.

18. A loudspeaker cabinet as set forth in claim 17

wherein said variable controller has

an infinite plurality of contacts,

respectively coupled to the infinite multiple tap positions along said continuously tapped coil, and

a contact defining the variable frequency-sensitive impedance means output node,

said contact being coupled to a junction point between the series connection of the first impedance means and the speaker impedance

whereby said first part of said continuously tapped coil is being coupled in parallel with said first impedance means, and said second part of said continuously tapped coil is being coupled in parallel with the loudspeaker.

19. A loudspeaker cabinet as set forth in claim 14

wherein said first impedance means, speaker impedance and second impedance means form a ladder network with said second impedance means having complementary variable frequency-sensitive impedance sections.